

CLAIMS

[Claim 1] A sheet peeling apparatus for peeling off a sheet being stuck on a plate-like object using an adhesive tape, comprising:

a first roller capable of performing a relative movement along the external surface of said sheet; and a second roller disposed adjacent to the first roller and capable of performing a relative movement along with the first roller,

wherein, said second roller is positioned at the position opposite to the travel direction of said first roller in a peeling operation, and is disposed at a position further away than the first roller with respect to the surface of said sheet.

[Claim 2] A sheet peeling apparatus for peeling off a sheet being stuck on a plate-like object using an adhesive tape, comprising:

a first peeling unit that pulls said adhesive tape along the direction across said sheet in a state stuck to the sheet to peel off the sheet at a predetermined peeling angle; and

a second peeling unit that pulls said adhesive tape in a state stuck to the end portion of said sheet to peel off the sheet at a peeling angle different from said peeling angle.

wherein said first and second peeling units are arranged to be selectively used.

[Claim 3] A sheet peeling apparatus for peeling off a sheet being stuck to cover the surface of a semiconductor wafer having a substantially disk-like shape using an adhesive tape of a width narrower than the diameter of the sheet, comprising:

a first peeling unit that pulls said adhesive tape along the direction across said sheet in a state stuck to the sheet to peel off the sheet at a predetermined peeling angle; and

a second peeling unit that pulls said adhesive tape in a state stuck to the end portion of said sheet to peel off the sheet at a peeling angle different from said peeling angle,

wherein said first and second peeling units are arranged to be selectively used.

[Claim 4] The sheet peeling apparatus according to claim 2 or 3, wherein said first peeling unit peels off said sheet in a direction substantially right angle or acute angle with respect to the surface of said plate-like object.

[Claim 5] The sheet peeling apparatus according to claim 2, 3 or 4, wherein said second peeling unit peels off said

sheet at a peeling angle larger than the peeling angle by said first peeling unit.

[Claim 6] A sheet peeling method of peeling off a sheet stuck on a plate-like object using an adhesive tape, the method comprising:

a first roller capable of performing a relative movement along the external surface of said sheet; and a second roller disposed adjacent to the first roller and capable of relative movement along with the first roller,

wherein, in a state that said second roller is positioned at the position opposite to the travel direction of said first roller at peeling operation, and disposed at a position further away than the first roller with respect to the surface of said sheet,

said first and second rollers and said sheet are caused to make a relative movement simultaneously along the external surface of the sheet to peel off the sheet.

[Claim 7] A sheet peeling method of peeling off a sheet stuck on a plate-like object using an adhesive tape, the method comprising:

a first peeling unit that pulls said adhesive tape along the direction across said sheet in a state stuck to the sheet to peel off the sheet at a predetermined peeling angle; and

a second peeling unit that pulls said adhesive tape in a state stuck to the end portion of said sheet to peel off the sheet at a peeling angle different from said peeling angle, wherein,

said first and second peeling units are selectively used to peel off said sheet.

[Claim 8] The sheet peeling method according to claim 7, wherein said first peeling unit peels off said sheet in the substantially right angle or acute angle direction with respect to the surface of said plate-like object, and said second peeling unit peels off said sheet at a peeling angle larger than the peeling angle by said first peeling unit.